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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/615,397	07/09/2003	Fabrice Villaume	L7307.03150	8487

7590 06/30/2005

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EXAMINER

NGUYEN, THU V

ART UNIT	PAPER NUMBER
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3661

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/615,397	Applicant(s) VILLAUME ET AL.	
	Examiner Thu Nguyen	Art Unit 3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 November 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

The amendment filed on March 31, 2005 has been entered. By this amendment, claims 1-13 have been canceled, and claims 14-19 are now pending in the application.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 14-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coquin et al (US 5,668,541) in view of Sekine et al (US 6,067,497) and further in view of Cleary et al (US 4,638,437) and Middleton et al (US 5,499,025).

As per claim 14, Coquin teaches a process for aiding the driving of an aircraft running over the ground in an acceleration phase with a view to takeoff (col.2, lines 12-14; col.3, lines 6-11), the process comprises: a current speed (col.2, line 42) and a value K1 representing acceleration/deceleration of the aircraft (col.2, lines 40-41; col.3, lines 65-67) are determined; and calculating the stopping position of the aircraft from distance ($v_{11}t^2/2K1t$) and the current position D_{1t} of the aircraft (col.3, line 62); presenting the stopping position to a driver (col.4, lines 1-5). Coquin does not explicitly disclose that the acceleration is a predetermined deceleration value corresponding to the deceleration during emergency braking and does not

explicitly disclose calculating distance d_f in a separate procedure from the calculating stopping position, presenting the stopping distance to the driver, and displaying a symbol on the windscreen of the aircraft using heads-up display. However, Coquin teaches stopping distance $d_f (v_{11}^2/2K1t)$ (col.3, line 62) with $K1t$ is a deceleration value ($K1t < 0$) and Sekine teaches calculating stopping distance with a predetermined reference deceleration value (col.4, lines 10-17), moreover, replacing the reference deceleration value taught by Sekine with a known emergency deceleration braking value would have been obvious. Further, Cleary teaches presenting the stopping distance to the driver (col.6, lines 49-62), and Middleton teaches a head-up display arranged in proximity of the windscreen of the aircraft (col.2, lines 10-22; col.5, lines 13-21) which display symbol corresponds to the field of vision of the pilot and the stopping position of the aircraft on a running track (col.11, lines 60-67; col.13, lines 32-39). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to determine stopping distance and to present the distance to the driver as taught by Sekine and Cleary in the display of Coquin and to replace the display of Coquin with the head up display of Middleton in order to inform the driver of the capability of stopping without passing the run way and to facilitate following up aircraft position and stopping position to the pilot wearing a head up display.

As per claim 15, refer to claim 14 above.

Art Unit: 3661

As per claim 16-18, using inertial devices for determining speed and deceleration of the airplane, and determining the current position of the vehicle using GPS devices would have been well known.

As per claim 19, refer to claim 15 above.

Response to Arguments

3. Applicant's arguments filed March 10, 2005 have been fully considered but they are not persuasive.

In response to applicant's argument on page 7, first paragraph, independent claims does not actually disclose whether the runway should be displayed in actual scale or in scaled scale as asserted by applicant. Further, it is not sure if the display of the present application really displays the run way in actual scale, since head up displays are usually small, it is not clear how the small display can illustrate a very long runway in true scale.

In response to applicant's argument on page 9, concerning acceleration and deceleration concept, it is well known in physics that acceleration and deceleration implies the same concept that indicates the rate of increasing (acceleration) or rate of decreasing (deceleration) in the speed of a moving object. Normally the deceleration can also be called acceleration with negative rate of increasing of the speed. Actually independent claims discloses deceleration. Further, it is well known that braking always involve deceleration (acceleration should never occurs when a brake is applied) the variable acc (collectively called as acceleration) actually bears negative acceleration value (that means deceleration value) when braking is

Art Unit: 3661

applied. Emergency braking might involve large deceleration, however emergency braking is still an implication of effecting deceleration with specific deceleration magnitude; since deceleration disclosed in the cited prior arts do not limit the deceleration to any specific range, and emergency braking would also be a very well known activity that occurs when collision is anticipated, the cited prior arts obviously include teaching of emergency braking with specific deceleration value.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thu Nguyen whose telephone number is (571) 272-6967. The examiner can normally be reached on T-F (7:30-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on (571) 272-6956. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

June 22, 2005



THU V. NGUYEN
PRIMARY EXAMINER